



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,883	06/01/2001	Birendra N. Agarwala	BUR920000215US1	2063

5409 7590 03/18/2003

ARLEN L. OLSEN  
SCHMEISER, OLSEN & WATTS  
3 LEAR JET LANE  
SUITE 201  
LATHAM, NY 12110

EXAMINER

WARREN, MATTHEW E

ART UNIT PAPER NUMBER

2815

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/871,883

Applicant(s)

AGARWALA ET AL.

Examiner

Matthew E. Warren

Art Unit

2815

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 26 February 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1-4, 6-13, 15-20, 22-25 and 27-35.

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☒ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
10. ☐ Other: \_\_\_\_\_

EDDIE LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

Continuation of 5. does NOT place the application in condition for allowance because: the applicant's arguments are not persuasive. The applicant primarily argues that Havemann cannot be combined with Farrar because of improper motivation, specifically that Havemann discloses a method of forming conducting layers without mechanical defects. The examiner still maintains that Havemann discloses proper motivation and that the combination of references is proper. Although Havemann discloses a method for forming the conducting layers, the end result is a conducting layer without defects. This is supported in the phrase "realizing desirable insulating and conducting layers without deleterious mechanical effects" (abstract last line). In essence, the method is used to make the device having the structure illustrated in fig. 3G. Such structure has a contact without mechanical defects. Mechanically, the upper liner conductor 48 makes good physical contact with the lower conductor liner 36 because it overlaps the upper edges of the lower liner. With respect to the arguments that Farrar in view of Otsuka does not teach all elements of claims 30 and 31, the examiner again maintains that the rejection is proper. The applicant primarily argues that there is no teaching of a liner on the sides of dielectric pillars. As stated in the rejection and the previous arguments, the dielectric pillars can be inserted in the spaces between the liners of Farrar, which have a liner to form a reliable damscene structure. Otsuka then discloses motivation for the pillars when it is stated in col. 2, lines 50-52 that the object of the invention is to form a reliable damscene structure. The reference to 320 in fig. 3K of Havemann is mentioned in col. 17, lines 20-26. The reference number is not shown in the drawings. The block of metal formed in the trench and on the liner layers 314 should be 320.

Continuation of 7. The amendments to the claims will be entered by if an Appeal is filed because the amendments do not raise new issues. The amendment deletes a limitation in the claims.